

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An optical interconnection circuit, comprising:  
a substrate;  
~~at least two micro tile elements installed on the substrate and having at least~~  
~~one of a light emitting function and a light receiving function; and a first element having a~~  
light emitting function fixed on the substrate by an adhesive;  
a second element having a light receiving function fixed on the substrate by an  
adhesive; and  
an optical wave-guide having an optical wave-guide member formed on the  
substrate to connect ~~at least the two micro tile elements to each other~~ the first element and the  
second element through which a light emitted by the first element transmits to the second  
element.
2. (Currently Amended) The optical interconnection circuit claimed in claim 1,  
the optical wave-guide being formed on the substrate to cover a part of the light emitting  
function of the first element and a part of the light receiving function of the second element,  
and the optical wave-guide having a function to transmit the optical signal emitted from the  
first element to the second element.  
~~the at least the two micro tile elements being formed on the substrate and~~  
~~including a first micro tile element emitting an optical signal and a second micro tile element~~  
~~receiving the optical signal; and~~  
~~the optical wave guide being formed on the substrate to cover a light emitting~~  
~~part of the first micro tile element and a light receiving part of the second micro tile element,~~

~~and having a function to transmit the optical signal emitted from the first micro tile element to the second micro tile element.~~

3. (Original) The optical interconnection circuit claimed in claim 1,  
the optical wave-guide member of the optical wave-guide being installed in a  
linear or planar manner on the substrate.

4. (Currently Amended) The optical interconnection circuit claimed in claim ~~2~~,1,  
the optical wave-guide including a light scattering mechanism scattering light,  
~~which being installed in the vicinity of at least one of the first micro tile element and the~~  
~~second micro tile element, and the optical wave-guide being installed in the vicinity of at least~~  
one of the first element and the second element.

5. (Original) The optical interconnection circuit claimed in claim 4,  
the light scattering mechanism being composed of a resin into which a light  
scattering particle is mixed.

6. (Original) The optical interconnection circuit claimed in claim 4,  
the light scattering mechanism being composed of a resin of which a surface is  
processed to comprise an irregularity thereon.

7. (Original) The optical interconnection circuit claimed in claim 4,  
the light scattering mechanism being composed of the optical wave-guide  
member of which at least one of the line width and the height differ from the other part.

8. (Original) The optical interconnection circuit claimed in claim 4,  
the light scattering mechanism being composed of at least one of a resin and a  
glass in which a light scattering particle is dispersed, and is dome-shaped.

9. (Original) The optical interconnection circuit claimed in claim 8,  
the optical wave-guide member being formed to cover the dome-shaped light  
scattering mechanism.

10. (Currently Amended) The optical interconnection circuit claimed in claim 2,  
the optical wave-guide including a light reflecting mechanism reflecting light,  
~~which is installed in the vicinity of at least one of the first micro-tile element and the second~~  
~~micro-tile element or on an edge part of the optical wave-guide member and the optical wave-~~  
guide being installed in the vicinity of at least one of the first element and the second element  
or on an edge part of the optical wave-guide member.

11. (Original) The optical interconnection circuit claimed in claim 10,  
the light reflecting mechanism including a metal film formed on a surface of  
the optical wave-guide member.

12. (Original) The optical interconnection circuit claimed in claim 10,  
the light reflecting mechanism being composed of the optical wave-guide  
member of which a surface is coated with a coating material including a metal particle.

13. (Original) The optical interconnection circuit claimed in claim 10,  
the light reflecting mechanism including a reflection plate having a reflection  
plane attached to the edge part of the optical wave-guide member; and  
the reflection plate being disposed to be inclined to the substrate.

14. (Original) The optical interconnection circuit claimed in claim 13,  
the optical wave-guide member being formed into the shape of a plurality of  
lines, which are approximately parallel each other, on the substrate; and  
the reflection plate being disposed on at least one edge of the plurality of lines,  
and being one common reflection plate reflecting light transmitting in each of the plural lines.

15. (Original) The optical interconnection circuit claimed in claim 1,  
the optical wave-guide member being deposited on a metal wiring pattern  
installed on the substrate.

16. (Currently Amended) The optical interconnection circuit claimed in claim 1,

the thickness of the ~~micro-tile~~first element and the second element being twenty  $\mu\text{m}$  or less.

17. (Currently Amended) The optical interconnection circuit claimed in claim 1,  
~~the first micro-tile element being one of an LED, a surface emitting laser, and a DFB laser.~~the first element being one of an LED, a surface emitting laser, and a DFB laser.

18. (Currently Amended) The optical interconnection circuit claimed in claim 1,  
the second ~~micro-tile~~-element being a surface photodiode or a phototransistor.

19. (Currently Amended) The optical interconnection circuit claimed in claim 2,  
a third ~~micro-tile~~-element being stacked on the first ~~micro-tile~~-element.

20. (Currently Amended) The optical interconnection circuit claimed in claim 19,  
the third ~~micro-tile~~-element including a detecting device that ~~detects quantity of light emitted from the first micro-tile element, and a controlling device that controls light emitting operation of the first micro-tile element based on the detected quantity of emitted light.~~controls light emitted from the first element, and a controlling device that controls light emitting operation of the first element based on the detected quantity of emitted light.

21. (Currently Amended) The optical interconnection circuit claimed in claim 1,  
~~the micro-tile~~each of the first element and the second element being electrically connected to an electronic circuit installed on the substrate.

22. (Currently Amended) A method of manufacturing an optical interconnection circuit, comprising:

bonding a plurality of ~~micro-tile~~-elements to a substrate; and  
installing an optical wave-guide member on the substrate to connect at least two ~~micro-tile~~-elements to each other.

23. (Currently Amended) The method of manufacturing an optical interconnection circuit claimed in claim 22,

the ~~micro tile element~~ plurality of elements including a first ~~micro tile element~~ emitting an optical signal and a second ~~micro tile element~~ receiving the optical signal; and the optical wave-guide member being installed to transmit the optical signal emitted from the first ~~micro tile element~~ to the second ~~micro tile element~~.

24. (Original) The method of manufacturing an optical interconnection circuit claimed in claim 22,

the optical wave-guide member being installed by coating the substrate and the micro tile element with a light curable resin, thereafter irradiating only an area of a desired pattern with light for patterning.

25. (Original) The method of manufacturing an optical interconnection circuit claimed in claim 22,

the optical wave-guide member being installed by coating the substrate and the micro tile element with a desired resin, thereafter using a photolithography method to pattern desired shape.

26. (Original) The method of manufacturing an optical interconnection circuit claimed in claim 24,

the coating being performed by using at least one of a spin coating method, a roll coating method, and a spray coating method.

27. (Original) The method of manufacturing an optical interconnection circuit claimed in claim 22,

the optical wave-guide member being installed by using a droplet ejecting method.

28. (Currently Amended) The method of manufacturing an optical interconnection circuit claimed in claim 27,

the optical wave-guide member being installed by installing a lyophobic area and a lyophilic area, which have a desired pattern, on the substrate and a surface of the ~~micro~~  
~~the plurality of elements~~elements, thereafter ejecting a resin onto the substrate and the ~~micro~~  
~~the plurality of elements~~elements by the droplet ejecting method.

29. (Original) The method of manufacturing an optical interconnection circuit claimed in claim 22,

the optical wave-guide member being installed by a pattern transferring method using a stamper.

30. (Original) The method of manufacturing an optical interconnection circuit claimed in claim 22,

the optical wave-guide member being installed by using a printing method.

31. (Original) The method of manufacturing an optical interconnection circuit claimed in claim 22,

the optical wave-guide member being installed by using a slit coating method in which a liquid resin is ejected from a slit-shaped gap.

32. (Original) An electro-optical device, comprising:

the optical interconnection circuit claimed in claim 1.

33. (Original) Electronic equipment, comprising:

the optical interconnection circuit claimed in claim 1.